REMARKS

Claims 1, 3, 4 and 6-18 remain in this application. Claims 1-18 are rejected. Claims 2 and 5 are cancelled. Claims 1 and 6 are amended herein to clarify the invention, to broaden language as deemed appropriate and to address matters of form unrelated to substantive patentability issues.

Applicants herein traverse and respectfully request reconsideration of the rejection of the claims and objection cited in the above-referenced Office Action.

The Office Action states that the specification is objected to for including cites to claims and for lacking headings. The specification is amended to remove cites to claims and to add headings. No new matter is added. Regarding the objection to the Title on the top of page 1 of the specification as not matching the Application Data Sheet, it is noted that the title was amended by the applicants in a Preliminary Amendment filed March 4, 2002. Withdrawal of the objection is respectfully solicited.

Claim 6 is rejected under 35 U.S.C. § 112, first paragraph, for containing subject matter lacking an adequate written description in the specification. The term "auxiliaries" is replaced with the term --property-altering additives--, which one skilled in the art will understand to mean any of the substances disclosed which change the property of the active substance, for example, solvent for changing the

viscosity, viscosity increasing additives and tackifying additives for enhancing adhesive properties. Therefore, reconsideration of the rejection of claim 6 is respectfully requested.

Claims 1, 4-15 and 17-18 are rejected as obvious over Von Kohorn et al. (US 4,666,767) under 35 U.S.C. §103(a). The applicant herein respectfully traverses this rejection. For a rejection under 35 U.S.C. §103(a) to be sustained, the differences between the features of the combined references and the present invention must be obvious to one skilled in the art.

Claim 1 is amended, and now contains the limitations of claims 2 and 5. The Office Action admits that Von Kohorn et al. does not disclose the limitations of claims 2 and 5, and therefore a *prima facie* case of obviousness could not be properly established in the rejection of amended claim 1 based upon the cited reference alone. The remaining rejected claims depend from claim 1, and therefore derive patentability at least in part therefrom, as well as for the additional recitations they contain. Reconsideration of the rejection of claims 1, 4-15 and 17-18 and their allowance are respectfully requested.

Claims 2, 3, 5 and 16 are rejected as obvious over Von Kohorn et al. (US 4,666,767) in view of GB 2131740 to Senninger and Frauenglass (US 3,625,875) under 35 U.S.C. §103(a). The applicants herein respectfully traverse this rejection.

As noted above, claims 2 and 5 are cancelled, and their subject matter incorporated into claim 1. Applicants respectfully traverse the rejections of claims

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2 and 5 as they pertain to claim 1, and to claims 3 and 16 dependent therefrom for the reasons given below.

The problem underlying the present invention is the impossibility to control evaporation of volatile active substances during the preparation of single-layer active substance matrices (see specification page 2, 3rd paragraph). To solve this problem it is important to ensure a uniform distribution of the active substance medium on the web-like matrix (see specification page 10, 1st paragraph) and maintaining metering accuracy. This is achieved by using a flowable medium with a viscosity of at least 1,000 mPa. s (see specification page 10, last paragraph) and by applying the active medium with a uniform pressure of ≤2 bar (see specification page 8, last paragraph). Subsequently the two layers are placed atop one another and irreversibly joined under pressure to form a laminate. Lamination of at least two film means their irreversible joining all over the adjacent surfaces.

Von Kohorn et al. teaches dispensers for the controlled release of pest controlling agents and a method for manufacturing the dispensers (col. 10, lines 3-35; Fig. 14). This method includes the step of longitudinal heat sealing end slitting to form separate stripes and subsequently lateral cutting and heat sealing such that a plurality of pouches are formed. Although, Von Kohorn et al is offered as teaching the layers are laminated onto one another, the product of the method according to Von Kohorn et al. is not a laminate as such. The two layer are laminated at their circumference, but are not irreversibly joined all over their adjacent surfaces. This

difference between the method according to Von Kohorn et al. and the inventive process is fundamental, because it is essential for the manufacture of the sheet-like article of the present invention that the interfaces of the two base material layers are bonded inseparably (page 11, 3rd paragraph) in order to obtain a homogeneous matrix upon storage of the laminate.

Thus, Von Kohorn et al. does not disclose a method for the formation of a homogeneous matrix containing the active substance, but merely a pouch consisting of an envelope being permeable for the active substance contained therein. For the manufacture of such a pouch it is not necessary to be concerned with the accuracy of metering and uniform distribution of the active substance on the base material layer. In this regard it is a matter of course that the problem underlying the present invention was not mentioned by Von Kohorn et al. The reference does not indicate the necessity of a uniform distribution of the active substance on the base material layer, nor does it indicate or suggest how such a uniform distribution could be achieved.

Therefore, it is respectfully submitted that the subject matter of amended claim 1, which includes features ensuring a uniform distribution of the active substance on the base material layer (viscosity of the solution and pressure of application) incorporated, is not made obvious to anyone with ordinary skill in the art at the time the present invention was made.

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Frauenglass discloses anaerobic adhesive and sealant compositions in non-flowable form. The compositions are substantially non-flowable at about 75 °F, but possess bonding capabilities. In contrast, the active substance-containing medium to be utilized for the process of the present invention is flowable at said temperatures. This is necessary, because the process of the present invention is carried out at room temperature (page 7, 3rd paragraph). Adjusting the viscosity of the active substance-containing medium to at least 1,000 mPa. s does not oppose the property of the medium to be flowable.

In addition, the active substance-containing medium to be utilized in the process of the present invention does not have to possess bonding capabilities as an essential feature as does the adhesive according to Frauenglass. Furthermore, within the process of preparing thermoplastic sheets using the anaerobic adhesive and sealant compositions according to Frauenglass, the sheets containing the adhesive were allowed to stand overnight (col. 8, 1st paragraph). Such a step would be detrimental to the content of volatile active substances in case of the inventive process.

Senninger (GB 2131740) discloses a packaging material formed from laminates with interposed active material and that both layers of the sheet material may be permeable to the pesticide. The problem of controlling the evaporation of volatile active substance during the manufacturing process and the necessity to obtain a uniform distribution of the active substance on the base material layer were

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not addressed by Senninger, nor does Senninger provide any information how the continuous coating of the bonding agent incorporating a pesticide is achieved.

Therefore, it is respectfully submitted that neither Frauenglass nor Senninger provide sufficient information for the skilled artisan to contemplate the inventive process as defined by amended claim 1, when combined with the teaching of Von Kohorn et al.. Neither the viscosity of the active substance containing medium nor the pressure of its application could be inferred from these references.

Thus, it is respectfully submitted that claim 1, and claims 3 and 16 depending therefrom, are not obvious in view of the cited references for the reasons stated above. Reconsideration of the rejections of the claims and their allowance are respectfully requested.

Applicants respectfully request a one (1) month extension of time for responding to the Office Action. Please charge the fee of $110 for the extension of time to Deposit Account No. 10-1250.

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited. Please charge any deficiency or credit any overpayment to Deposit Account No. 10-1250.

Respectfully submitted,
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APPENDIX I

AMENDED SPECIFICATION PARAGRAPHS WITH AMENDMENTS INDICATED THEREIN BY BRACKETS AND UNDERLINING

Please replace indicated paragraphs of the specification with replacement paragraphs presented below. Appendix I is attached hereto having marked versions of said indicated paragraphs with amendments indicated by brackets and underlining.

Page 5: 4th full paragraph beginning at line 23, replace with the following:

This object is achieved in accordance with the invention by means of a production process [in accordance with the process steps set out in the characterizing clause of Claim 1. The invention is] utilizing process steps described in detail below.

Page 8: 1st full paragraph beginning at line 3, replace with the following:

[The principle of the invention is elucidated further in] Fig. 1 [on the basis of] is a schematic process flowchart[,]; and [while]

Fig. 2 is a sectional view showing [shows] the active substance matrix [in section] before and after storage.

APPENDIX II

AMENDED CLAIMS WITH AMENDMENTS INDICATED THEREIN BY BRACKETS AND UNDERLINING

1. (Twice amended) Process for producing [a sheetlike] an article in a form of a sheet comprising a single-layer homogeneous matrix containing at least one active substance for an application site, and at least one active substance being selected from crop protection agents, biocides, fertilizers, plant strengtheners, cosmetic active principles and fragrances, comprising the following temporally and spatially separate steps:

a) [application of] applying the at least one active substance as a flowable medium having a viscosity of at least 1000 mPa.s to at least one of the two layers, identical in composition, of a base material, at a pressure ≤ 12 bar with metering;

b) [placement of] placing the two base material layers atop one another so as to enclose the at least one active substance applied, and irreversible joining of the layers with the at least one active substance therebetween under pressure to form a laminate[,]; and

c) [storage of] storing the laminate for predeterminable duration under defined conditions to effect migration of the at least one active substance into the base material layers and connection of the base material layers at their interfaces to

form a single-layer homogeneous matrix in which the at least one active substance is substantially uniformly distributed.

6. (Twice amended) Process according to Claim 5, wherein the at least one active substance applied in step a) contains [auxiliaries] property-altering additives.